

Claims

1. A transgenic *Xenopus* comprising a gene that is specifically expressed in the lymphatic vessel system of said *Xenopus*.
- 5 2. A transgenic *Xenopus* according to claim 1 wherein said gene encodes for a reporter gene or a biologically relevant transgene.
3. A method to produce a transgenic *Xenopus* according to claims 1-2 comprising introducing a vector comprising a gene under control of a promoter specifically expressed in the lymphatic vascular system into cells of *Xenopus*.
- 10 4. A method according to claim 3 wherein said promoter is selected from the list comprising Podoplanin promoter, Prox-1 promoter, VEGFR-3 promoter and LYVE-1 promoter.
5. A method for visualizing the lymphatic vessel system in *Xenopus* comprising generating a transgenic *Xenopus* comprising a reporter gene that is specifically expressed in the lymphatic vessel system.
- 15 6. Use of a transgenic *Xenopus* according to claims 1-2 to identify a compound capable of modulating lymphatic vessel development comprising:
 - a) contacting said transgenic *Xenopus* with a test compound,
 - b) comparing the lymphatic vessel system in said transgenic *Xenopus* contacted with said test compound with the lymphatic vessel system of a transgenic *Xenopus* that was not contacted with said test compound and,
 - 20 c) determining the effect of said test compound on lymphatic vessel development, such that if lymphatic vessel development in the transgenic *Xenopus* contacted with said test compound is different from the lymphatic vessel development in the transgenic *Xenopus* that was not contacted with said test compound, said
25 compound is a modulator of the lymphatic vessel system.